

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

RECEIVED

16 SEP 2004

WIPO PCT

| | | |
|---|--|---|
| Applicant's or agent's file reference 21705WO | FOR FURTHER ACTION | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No. PCT/NL 03/00679 | International filing date (day/month/year) 03.10.2003 | Priority date (day/month/year) 08.10.2002 |
| International Patent Classification (IPC) or both national classification and IPC C08F283/00 | | |
| Applicant DSM IP ASSETS B.V. et al | | |

| |
|--|
| <ol style="list-style-type: none"> 1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 5 sheets, including this cover sheet. <ul style="list-style-type: none"> <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). <p>These annexes consist of a total of sheets.</p> |
| <ol style="list-style-type: none"> 3. This report contains indications relating to the following items: <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application |

| | |
|--|--|
| Date of submission of the demand 06.04.2004 | Date of completion of this report 15.09.2004 |
| Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Wirth, M Telephone No. +49 89 2399-8595 |



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/NL 03/00679

I. Basis of the report

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-18 as originally filed

Claims, Numbers

1-9 as originally filed

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
 - the language of publication of the international application (under Rule 48.3(b)).
 - the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority in written form.
 - furnished subsequently to this Authority in computer readable form.
 - The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
 - the claims, Nos.:
 - the drawings, sheets:

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

- 6. Additional observations, if necessary:**

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/NL 03/00679

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

| | | |
|-------------------------------|-------------|-----|
| Novelty (N) | Yes: Claims | |
| | No: Claims | 1-9 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-9 |
| Industrial applicability (IA) | Yes: Claims | 1-9 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NL 03/00679

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

- D1: WO 98 32780 A (KIKUCHI TOSHIKAZU ;HIRAI TSUYOSHI (JP); JSR CORP (JP); KOMIYA ZEN) 30 July 1998 (1998-07-30)
- D2: EP-A-0 407 004 (BORDEN INC) 9 January 1991 (1991-01-09)
- D3: WO 00 75211 A (TAKASE HIDEAKI ;JSR CORP (JP); UEDA JIROU (JP); UKACHI TAKASHI (JP) 14 December 2000 (2000-12-14))
- D4: WO 02 29448 A (UEDA JIRO ;JSR CORP (JP); UKACHI TAKASHI (JP); UKON MASAKATSU (JP)) 11 April 2002 (2002-04-11)
- D5: WO 97 00276 A (UCB SA ;KOCHI MICHIO (JP)) 3 January 1997 (1997-01-03)

2. Novelty and inventive step (Art. 33(2) and (3) PCT).

- a) Example 1 of D1 discloses a photocurable resin composition comprising a urethane acrylate having a polyether structure, a monofunctional ethylenically unsaturated compound (e.g. isobornyl acrylate, vinyl caprolactam), a tetraacrylate and photoinitiators. Present claim 1 is therefore not novel over D1.
- b) The same type of composition is also disclosed in the claims of D2 (claims 1 and 3) so that present claim 1 is not novel over D2.
- c) D3 and D4 disclose photocurable resin composition for optical material comprising a urethane acrylate having a polyether structure, a monofunctional ethylenically unsaturated compound and a photoinitiator. The use of polyfunctional acrylate to improve the shape restorability is neither disclosed nor suggested.
D5 discloses a photocurable resin composition comprising a urethane acrylate which does not comprise any polyether structure.

3. The parameters used in claims 5-7 are directed to the cured product. However, the curing conditions are not mentioned (curing time, temperature...) and the obtained properties of the cured product depend highly on the curing conditions.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NL 03/00679

Claims 5-7 are therefore not clear (Art 6 PCT) and this part of the invention is not sufficiently disclosed (Art 5 PCT).